

Patient Examination

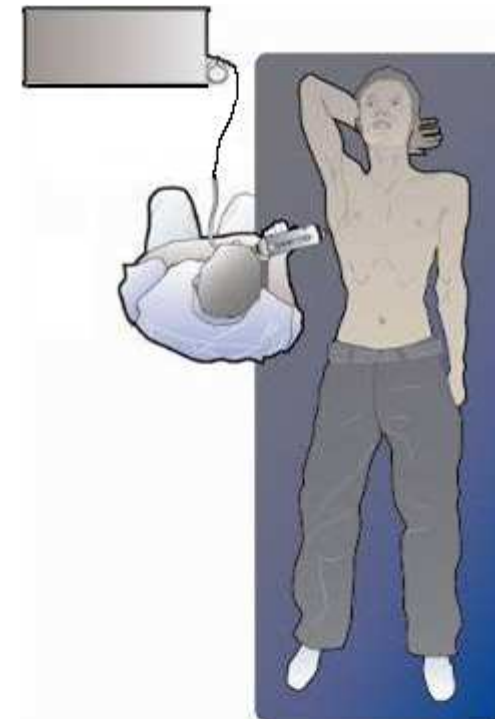
Patient Positioning

- Measurement on the right lobe of the liver between the ribs.
- Patient in dorsal decubitus position with the right arm in maximal abduction.
- If the patient is stressed, measurements can be performed whilst the patients hold their breath.



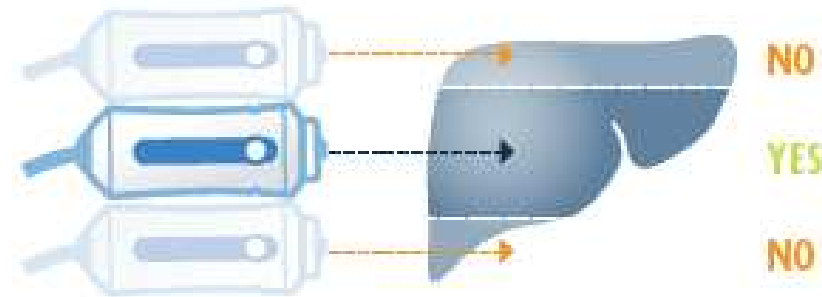
Operator Positioning

- Operator sitting on a stool or a chair with wheels on the right side of the patient facing both the patient's chest and the screen of the device.
- Right forearm should rest on the bed along the patient's chest.
- All the weight of the probe should be within the right hand.
- The left hand helps keeping the probe correctly positioned.



Probe Positioning (1)

- Place the probe **between the ribs** adjacent to the right lobe of the liver in the middle of the parenchyma away from the border of the liver.
- The location where a liver biopsy would be performed should suit.
 - *Dullness at percussion*
 - *Sternum and mid auxiliary line*

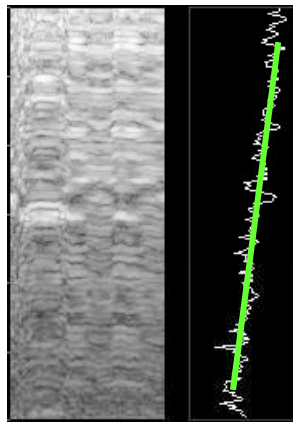


Probe Positioning (2)

- 🔄 Use the **A mode** and **M mode** images to find a liver portion **at least 6-cm deep** free of large vascular structures

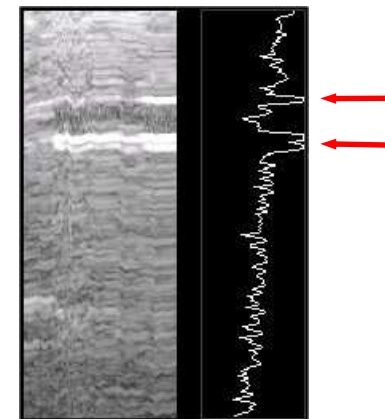
OK

A-mode linear
and
uniform



NO

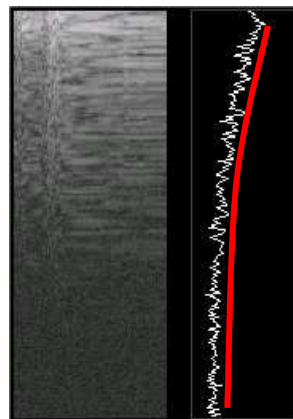
Vessel wall
structures



NO

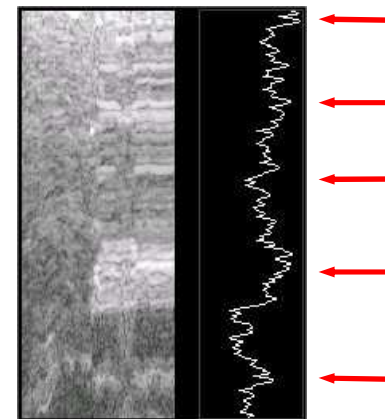
A-mode not
linear

Lack of gel!



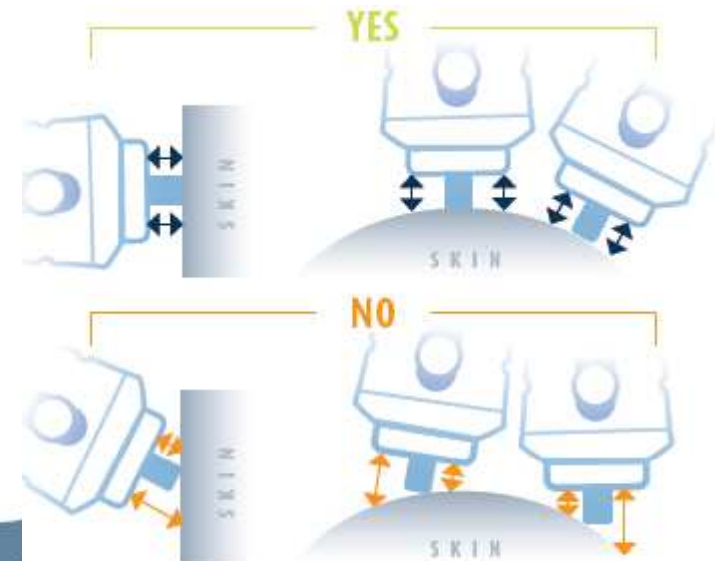
NO

Heterogeneous
structures



Probe Positioning (3)

- Keep the probe **perpendicular** to the skin surface or the liver stiffness will be overestimated.
- Make sure you check the perpendicularity along both axes by looking at the probe.



CAUTION : Keeping the perpendicularity of the probe may be difficult with children (S probe)

- Increase the force applied with the probe on the patient's skin until the **pressure indicator** is in the **green level**.



Measurement

- ② When all the conditions mentioned previously are met, measurement can be triggered:
 - ② Position of the probe
 - ② Force
 - ② Perpendicularity
- ② Press the button on the probe **without changing the probe position** (10 valid measurements minimum are required).
- ② The strain rate image (elastogram) quality should be checked...

